

Date: Wednesday, 11/03/2009 9:53:23 AM
 User: Chantal Lavoie

Process Sheet

SPLIT-2

Customer : CU-DAR001 Dart Helicopters Services
 Job Number : 46414 -2
 Estimate Number : 12482
 P.O. Number :
 This Issue : 11/03/2009 S.O. No. :
 Prsht Rev. : NC
 First Issue : 11 Type : PURCHASED PARTS
 Previous Run : 45033
 Written By :
 Checked & Approved By : C209/03/11
 Comment : Est Rev.A New Issue 06-07-03 JLM

Drawing Name : SADDLE BILLET (6061)

Part Number : D6102013
 Drawing Number : D6102 REV D
 Project Number : N/A
 Drawing Revision : D
 Material :
 Due Date : 18/09/2009

Qty: 200 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 PG PURCHASING

Comment: Issue P/O: 8393

- a) Description: Aluminum Billet
 b) 7.000" x 6.500" x 2.000" thick
 c) Tolerance on all dimensions is +0.06/0.00
 d) Grain direction along 6.500" length
 e) Material: 6061-T6/T6511 (QQ-A-250/11 or QQ-A-200/8)
 Material release certificate is required

C209/03/13

(200)

2.0 D6102013P 6061-T6 7.0x6.5x2.0



Comment: Qty.: 1.0000 Each(s)/Unit Total: 200.0000 Each(s)
 6061-T6 7.000"x6.500"x2.000"

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

(50)

C209/03/12

4.0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK
 Check certification to Dwg D6102 for compliance

→

09/06/03

(50)

5.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
 Identify and Stock
 Location: _____

Machinist

mf 09-06-04

Date: Wednesday, 11/03/2009 9:53:23 AM
User: Chantal Lavoie

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE BILLET (6061)

Job Number: 46414

Part Number: D6102013

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/06/04 *[Signature]*

Job Completion

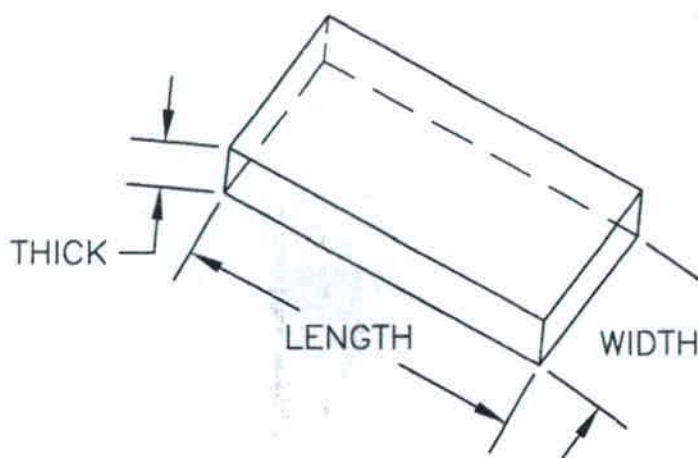


mf
09-06-03

DART

DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED #	DRAWING NO. D6102	Rev. D SHEET 1 OF 1
DATE 06.06.30		TITLE SADDLE BILLET, 6061	SCALE NTS
A	01.03.30	NEW ISSUE	
B	03.10.20	ADD D6102-005/-007/-009	
C	04.08.25	ADD D6102-010/-011	
D	06.06.30	ADD D6102-013	

SPECIFICATION CONTROL DRAWING



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 46414

RELEASED

06.08.15 #

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.06/-0.00), AND GRAIN DIRECTION AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.06/-0.00.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6102-001	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.880	6.250	2.000	Along 7.880 Length
D6102-003	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.000	6.250	2.000	Along 6.000 Length
D6102-005	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	47.85	15.250	1.000	Along 47.85 Length
D6102-007	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.500	7.000	2.500	Along 7.500 Length
D6102-009	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	11.000	6.000	5.000	Along 11.000 Length
D6102-010	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.950	8.250	2.500	Along 7.950 Length
D6102-011	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	8.250	2.500	Along 6.500 Length
D6102-013	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	7.000	2.000	Along 6.500 Length

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**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 1

No de Formulaire d'Emballage / Pack Slip No:40043

Expédié de / Ship From:		Vendu à / Sold To:		Expédié à / Ship To:		Livré à / Deliver To:	
Castle Metals Montreal 835-Selkirk Avenue Pointe Claire, QUEBEC H9R 3S2		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7			
Date d'expédition / Date Shipped	F.O.B.	Modalités de transport / Freight Terms		Transporteur / Carrier	N° du Bon de connaissance / BOL No		N° de livraison / Delivery No
01-JUN-09	ORIGIN	Prepaid			38746		2804856

Détails d'expédition / Shipment Details	Destination finale / Final Destination Branch -
--	--

N° de commande / Order No		N° de ligne Line No		N° d'article / Item No		Description							
197043		1		8641.MO		2.0000.PL.6061.T651.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 7 IN () X 6.5 IN ()							
N° de bon de commande / Purchase Order No		N° de pièces / Part Number		Qté commandée / Ordered Qty		Qté Facturée / Invoice Qty		Solde à livrer / Backorder Qty					
8393				50 PCS		50 PCS							
Détails / Details													
Usine / Mill		No de coulée / Heat Number		Code méc / Mech Id		Plèces / PCS		Largeur (Pouce)/ Width (IN)		Longueur (Pouce)/ Length (IN)		Qté expédiée / Shipped Qty (LBS)	
		433624A4				50						452.74	

Des marchandises technologiques sont sujettes aux règlements de l'Export Administration et du Département d'Etat des Etats-Unis. Si elles ont été exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des Etats-Unis est interdite.
These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, require an export license. Diversion contrary to US Law is Prohibited.
Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports et examens sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 90 jours suivant la livraison. Le matériel occupé sur mesure ou coupé par le client ne peut être retourné pour crédit.
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are voided unless made in writing to A.M. Castle & Co. within 90 days of the shipment. Material cut to the customer's order, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par
This material has been received and inspected by:

Date:

02-06-'09 15:50 FROM-metalex castle

514-695-3281

T-223 P003/008 F-789

SHIP TO:

AM CASTLE & CO
14001 ORANGE AVE
P.O. BOX 1402
PARAMOUNT, CA 90723

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 387-2586

CERTIFIED TEST REPORT

Serial Number

4121454

SOLD TO:

AM CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

CUSTOMER PO NUMBER: 02-29555	WORK PACKAGE:	CUSTOMER PART NUMBER: 8841 A96061-60	SHIP RUNLOAD ID: 101220/22	GOVT CONTRACT NUMBER:		
KAISER ORDER NO: 1062767	LINE ITEM: 1	SHIP DATE: 14-FEB-2008	ALLOY: 6061	CLAD: BARE	TEMPER: T851	PRODUCT DESCRIPTION: PRECISION PLATE
WEIGHT SHIPPED: 11222 LB	QUANTITY: 8 PCS EST.	BL NUMBER: 2016467	GAUGE: 2.0000 IN	WIDTH: 48.500 IN	LENGTH: 144.500 IN	

Certified Specifications

AMS 4027/RevM
ASTM B 209/Rev06

AMS-QQ-A-250/11

ASME SB 209/Rev2004

Test Code: 1511

Test Results

Lot: 433614A5 Cast 650

Drop 11

Ingot 3

(ASTM B8/B567)

Tensile: Temper
T851

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
47.9 : 47.9
(330 : 330)

Yield KSI (MPA)
42.8 : 43.1
(295 : 297)

Elongation %
14.1 : 14.8

(ASTM E1251)

Chemistry:
Actual

Si 0.78

Fe 0.5

Cu 0.29

Mn 0.04

Mg 1.1

Cr 0.18

Zn 0.18

Ti 0.02

V 0.01

Zr 0.00

TOT

OTHER 0.06

Lot: 433624A4 Cast 650

Drop 10

Ingot 1

(ASTM B8/B567)

Tensile: Temper
T851

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
46.9 : 47.9
(328 : 330)

Yield KSI (MPA)
42.5 : 43.4
(293 : 299)

Elongation %
13.1 : 13.9

(ASTM E1251)

Chemistry:
Actual

Si 0.75

Fe 0.5

Cu 0.29

Mn 0.05

Mg 1.1

Cr 0.21

Zn 0.11

Ti 0.03

V 0.01

Zr 0.00

TOT

OTHER 0.06

02-06-'09 15:50 FROM-metals castle

514-695-3281

T-223 P004/008 F-789

**KAISER
ALUMINUM****CERTIFIED TEST REPORT**Serial Number
4121454Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

Lot: 716800A2 Cast 850

Drop 07

Ingot 3

Parent Lot: 433836A0

(ASTM B567)

Tensile: Temper
T651Dir / # Tests
LT / 2 (Min:Max)Ultimate KSI (MPA)
47.0 : 47.8
(324 : 330)Yield KSI (MPA)
42.0 : 43.1
(290 : 297)Elongation %
13.8 : 13.9

(ASTM E1251)

Chemistry:

Actual

SI

FE

CU

MN

MG

CR

ZN

TI

V

ZR

TOT

OTHER
0.08

0.71

0.6

0.31

0.07

1.1

0.19

0.11

0.03

0.01

0.00

0.00

ALLOY LIMITS

Chemistry:

8081 MIN:

MAX

SI

FE

CU

MN

MG

CR

ZN

TI

V

ZR

OTHER

MAX

0.40

0.0

0.15

0.00

0.8

0.04

0.00

0.00

0.00

0.00

0.00

EACH 0.05

0.8

0.7

0.40

0.15

1.2

0.35

0.25

0.15

0.05

0.05

0.05

TOT 0.15

Aluminum Remainder

CASTLE METALS-LADATE REC'D 02/20/09REC'D FROM KAISERAPPROVED BY DTIAC 8641**CERTIFICATION**

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE U.S.A OR CANADA AND MANUFACTURED IN THE U.S.A, AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR



Page 2 of 2